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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,206	08/18/2000	Takayuki Hirabayashi	09792909-0398	7277

26263 7590 03/14/2002

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EXAMINER

JONES, STEPHEN E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 03/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/641,206	Applicant(s) HIRABAYASHI, TAKAYUKI	
	Examiner Stephen E. Jones	Art Unit 2817	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of species I (Figs. 4, 5A, and 5B) in Paper No. 5 is acknowledged.

Applicant indicated that claims 1-5 and 8 read on the elected species. However, upon further examination it does not appear that Claim 8 reads on the elected species, and instead reads on a non-elected species such as Fig. 14 (species IX).

2. Accordingly, Claims 6-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

### ***Drawings***

3. Figures 1, 2, 3A, 3B, and 3C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities:

There are numerous grammatical errors in the specification (for example: on page 9 (line 5) the phrase "There is other method" could not be understood; on page 10 (lines 23-24), the phrase "the side of substrate having" should read as --the side of the substrate having--, etc.

A substitute specification including thorough grammatical editing is required.

***Claim Objections***

5. Claims 1 and 2 are objected to because of the following informalities:

Regarding Claim 1, it appears that the phrase "in inside layer" should read as --in an inside layer-- to improve the grammatical form.

Also regarding Claim 1, it appears that the phrase "in outside" should read as --on the outside--.

Also, regarding claim 1, it appears that the phrase "and changing the area and position" would better read as --the pre-selected area and position-- since the device does not appear to be adjustable after it is made.

Regarding Claim 2, it appears that the phrase "formed on said earth conductor" would better read as --formed in said earth conductor-- since the pattern is made by open areas in the conductor.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 2, it is not clear what the applicant is intending to claim thus rendering the claim vague and indefinite. It does not appear that anything in applicant's

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invention is changeable or enables change. Is applicant attempting to indicate that the pre-selected pattern formed in the earth conductor affects the frequency characteristic?

Regarding Claims 3-5, it is not clear what the term "pattern" is referring. Is the term "pattern" referring to the "pattern" recited in Claim 1 or the "pattern formed on the earth conductor" in claim 2?

Regarding Claim 4, the entire claim is confusing including the phrase "comprising a same or different pattern" which could not be understood.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5 (insofar as claims 2-5 could be understood) are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kuroda et al.

Kuroda et al. (Figs. 1A and 1B) discloses a multi-layer board including: signal conductors (S1-S3) in a dielectric layer (14); lattice shaped ground patterns (G1 and G2) (Claim 5 insofar as could be understood) are on the outsides of the dielectric layer (Claims 3 and 4 as could be understood) which reduces the maximum deviation of the characteristic impedance of the signal lines (see Col. 3, lines 10-20) and thus inherently affects the signal characteristics (Claim 1 and 2 as could be understood).

**Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brackelmann (DT2444228) discloses matching characteristic impedance of a strip cable.

Tsutomu (JP405267913) discloses a signal line with a mesh ground plane.

Toshiyuki (JP3158002) discloses a semiconductor device with a mesh ground plane.

Kenney discloses a flexible shielded circuit board.

Lo discloses a multilayer ceramic filter having a trimmed part of the ground layer.

Suski (US 5675299) discloses a non-solid impedance controlled reference plane.

Suski (US 5682124) discloses a technique for increasing the range of impedance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 703-305-0390. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 703-308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6251 for regular communications and 703-308-6251 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

SEJ  
March 12, 2002

  
Robert J. Pascal  
Supervisory Patent Examiner  
Technology Center 2800